

**Manufacturers' Shipments,
Inventories, and Orders**

U.S. Department of Commerce
BUREAU OF THE CENSUS



September 1978

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(All figures in text below are in seasonally adjusted current dollars.)

New orders for manufactured products increased \$0.4 billion or 0.3 percent to \$131.4 billion in September, the Department of Commerce, Bureau of the Census reported today. Durable goods new orders were valued at \$72.3 billion up \$0.7 billion or 1.0 percent from August. Excluding transportation equipment, orders for durable goods rose \$0.8 billion or 1.5 percent to \$53.9 billion. Wide fluctuations in new orders for aircraft and shipbuilding have been affecting the movement of new orders for the last several months. This results in part from difficulty in seasonally adjusting data for these industries especially for defense new orders. This is discussed further below.

Shipments of manufactured products remained virtually unchanged from the August level of \$127.9 billion. Durable goods shipments showed an increase of \$0.2 billion or 0.3 percent to \$68.9 billion while nondurable goods shipments declined \$0.2 billion or 0.4 percent to \$59.0 billion.

Unfilled orders for durable goods continued to rise in September with a \$3.4 billion or 1.6 percent increase to \$213.4 billion. During the last year backlog has increased steadily by an average of 1.8 percent per month. Manufacturers' inventories at the end of September amounted to \$194.1 billion, a \$1.2 billion or 0.6 percent increase over the August level.

The 1.5 percent rise in durable goods new orders, excluding transportation equipment, was caused by blast furnaces and steel mill products, up \$0.6 billion or 11.1 percent to \$5.8 billion, nonelectrical machinery up \$0.8 billion or 7.1 percent to \$12.7 billion, electrical machinery, up \$0.1 billion or 1.6 percent to \$8.9 billion, and the instruments and related products, up \$0.1 billion or 4.7 percent to \$2.8 billion. Offsetting declines occurred in fabricated metal products of \$0.3 billion or 3.7 percent to \$8.0 billion, nonferrous and other primary metal products of \$0.2 billion or 5.0 percent to \$4.3 billion, and all other durable goods industries of \$0.3 billion or 4.0 percent to \$6.6 billion. All of these declines followed on sizeable increases in August new orders.

New orders for the nondefense capital goods industries rose \$0.7 billion or 3.5 percent to \$20.0 billion, with the main contributors being nonelectrical machinery, communication equipment and shipbuilding. Declines were reported by the complete aircraft and railroad equipment industries. New orders for the household durable goods series dropped \$0.1 billion or 2.5 percent to \$4.5 billion after an August increase of 13.0 percent.

Shipments of durable goods for September were up 0.3 percent or \$0.2 billion to \$68.9 billion. The major increase was reported by the aircraft and parts industries which went up \$0.6 billion or 15.5 percent to \$4.1 billion. The blast furnace and

steel mill industry also increased their shipments by \$0.2 billion or 3.0 percent. The nondurable goods industries reported a \$0.2 billion decline in shipments. Increases in the chemicals, petroleum and coal industries were offset by declines in the food and rubber and all other nondurable goods industries.

Shipments for the capital goods industries as a group showed an increase of \$0.9 billion or 4.2 percent to \$21.3 billion with both defense and nondefense shipments increasing by the same relative amounts. The household durable goods category declined \$0.1 billion or 2.3 percent to \$4.3 billion.

Increases in the order backlog for durable and nondurable goods were evidenced in most major industry groups. The only declines were in stone, clay, and glass products; fabricated metal products; and the miscellaneous durable goods industries.

Inventories of durable and nondurable goods manufacturers showed identical percentage increases of 0.6 percent in September. The durable goods industries increase of \$0.8 billion to \$126.0 billion resulted from increases in the transportation industries of \$0.3 billion and by the machinery industries of \$0.3 billion.

It should again be noted that for all of the defense capital goods series, modified seasonal adjustment factors were used to account for the change in the Federal Government's fiscal year from a July 1 through June 30 basis to an October 1 through September 30 basis in 1976. These factors were introduced in the July 1977 data and will continue to be used until a sufficient amount of data are available to assess the impact of the change in fiscal year. Further seasonal adjustment modifications are made for motor vehicle assembly plants which during July, August, and September, are closed down to allow for retooling for the forthcoming model year. Year-to-year variations in both the timing and duration of the model changeover period are sufficiently great that the normal seasonal adjustment procedures do not adequately identify the seasonality during the period and may introduce substantial erratic movements. To compensate for this, the estimated seasonally adjusted quarterly average is used for the seasonally adjusted data in each of the 3 months. The unadjusted data are not subject to any special adjustments.

The figures on the durable goods industries in this report supersede those issued earlier in the advance report on durable goods. The present report is based on more complete reporting, but the estimates are also considered preliminary. Final figures will appear as historical data in the report to be published for next month. The advance report on durable goods for October is scheduled for release on November 22, 1978 and the full report is scheduled for release on December 4, 1978.

Address inquiries concerning these figures to U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233, or call Ruth Runyan or Kathleen Swindell, (301) 763-2502.

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Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS FOR INDUSTRY GROUPS, MARKET CATEGORIES, AND SUPPLEMENTARY SERIES
(Millions of dollars)

SIC	Industry	Seasonally adjusted				Quarterly				Without seasonal adjustment ¹											
		Monthly				Monthly				Monthly											
		Monthly				Monthly				Monthly											
		Sept. 1978P	Aug. 1978	July 1978	June 1978	III 1978	II 1978	I 1978	Sept. 1978P	Aug. 1978P	July 1978	June 1978	Sept. 1977	Aug. 1977	July 1977	June 1977	1978	1977			
ALL MANUFACTURING, DURABLE AND NONDURABLE GOODS, TOTAL																					
	All manufacturing industries:	127,842	127,871	123,106	124,839	378,819	372,942	354,405	133,870	126,166	114,380	131,727	117,609	110,477	102,678	117,134	1,108,300	990,580			
	Total, excluding transportation, excluding unfilled orders.....	111,134	111,547	107,596	108,952	330,277	324,796	309,133	116,487	112,308	101,195	114,187	102,784	98,640	89,966	101,301	967,286	864,718			
	Total for industries with unfilled orders.....	68,504	68,388	65,103	65,797	201,995	196,146	185,147	71,501	67,277	59,655	69,964	61,626	57,557	52,491	61,390	583,589	513,363			
	Durable goods industries, total.	68,870	68,684	65,222	66,293	202,776	198,203	187,507	72,289	65,991	59,296	71,839	61,989	56,253	52,831	62,943	589,816	517,861			
	Durable goods with unfilled orders.....	55,659	55,363	52,241	53,057	163,263	157,909	149,000	57,959	54,025	47,838	56,955	49,291	45,550	41,896	49,516	470,927	410,578			
	Nondurable goods industries, total.....	58,972	59,187	57,884	58,546	176,043	174,739	166,898	61,581	60,175	55,084	59,888	55,620	54,224	49,847	54,191	518,484	472,719			
	Nondurable goods with unfilled orders.....	12,845	13,025	12,862	12,740	38,732	38,237	36,147	13,542	13,252	11,817	13,009	12,335	12,007	10,595	11,874	112,662	102,785			
	MARKET CATEGORIES AND SUPPLEMENTAL SERIES																				
		Market categories:	9,627	9,809	9,291	9,532	28,727	28,538	27,235	10,671	10,651	8,544	9,714	9,654	9,423	7,783	8,750	84,242	75,250		
		Home goods and apparel.....	22,724	22,855	22,300	22,545	67,879	67,579	64,753	24,024	23,026	21,434	22,874	21,507	20,649	18,923	20,570	199,419	180,470		
Equipment and defense products, except automotive.....		18,248	17,606	16,838	16,968	52,692	49,809	46,925	18,443	16,608	15,513	18,406	15,500	14,179	13,560	15,683	149,140	131,203			
Automotive equipment.....		12,847	12,963	12,340	12,563	38,150	38,640	36,391	13,674	10,904	10,317	14,052	11,997	9,452	10,086	12,858	112,993	101,589			
Construction materials, supplies, and intermediate products.....		11,002	11,200	10,605	10,786	32,807	32,090	29,736	11,746	11,959	10,502	11,890	10,102	9,887	8,820	9,982	95,776	81,181			
Other materials and supplies and intermediate products.....		53,394	53,438	51,732	52,445	158,564	156,286	149,365	55,312	53,018	48,070	54,791	48,849	46,896	43,506	49,291	466,728	420,887			
Supplementary series: ²																					
Household durable goods industries.....		4,345	4,447	4,155	4,361	12,947	12,863	12,158	4,902	4,707	3,608	4,492	4,293	4,028	3,421	3,916	37,775	32,616			
Capital goods industries.....		21,266	20,409	19,574	19,653	61,249	58,247	55,411	21,705	19,211	17,966	21,255	18,087	16,384	15,693	17,984	174,244	150,979			
Nondefense.....		18,323	17,598	16,819	16,782	52,740	49,637	47,081	18,619	16,509	15,360	18,268	15,299	13,937	13,182	15,219	149,001	127,614			
Defense.....	2,943	2,811	2,755	2,871	8,509	8,610	8,330	3,086	2,702	2,606	2,987	2,788	2,447	2,511	2,765	25,243	23,365				
INDUSTRY GROUPS AND INDUSTRIES																					
32	Durable goods industries:	3,753	3,791	3,644	3,720	11,188	11,087	9,873	4,069	4,081	3,581	4,039	3,198	3,294	2,865	3,259	32,498	26,337			
	Stone, clay, and glass products.....	316	302	275	294	893	979	862	328	326	282	318	266	380	272	310	2,778	2,660			
	Glass containers.....	10,274	10,346	9,905	9,860	30,525	29,312	27,677	10,674	10,110	9,131	10,609	8,956	8,373	7,844	9,504	88,639	77,754			
	Primary metals, total.....	5,214	5,064	5,030	5,062	15,308	14,972	13,778	5,344	5,039	4,678	5,366	4,478	4,277	3,997	4,875	44,804	38,808			
	Blast furnaces, steel mills, nonferrous and other primary metals.....	3,996	4,267	3,823	3,786	12,086	11,260	11,055	4,236	4,083	3,540	4,123	3,498	3,189	3,023	3,629	34,698	30,821			
	Fabricated metal prod., total.	8,134	8,241	7,539	7,899	23,914	23,792	22,433	8,566	8,393	7,158	8,510	7,633	7,217	6,398	7,681	70,654	63,489			
	Metal cans, barrels, and drums.....	786	781	741	817	2,308	2,434	2,311	924	936	855	918	864	876	796	856	7,345	6,763			
	Machinery, except electrical, total.....	12,042	11,831	11,454	11,425	35,327	33,880	31,793	12,324	11,074	10,446	12,453	10,381	9,510	8,946	10,423	101,425	88,114			
	Engines and turbines.....	1,113	1,083	1,038	932	3,234	2,862	2,904	1,175	966	834	1,012	903	750	711	837	8,960	7,385			
	Farm machinery and equipment	974	1,015	941	964	2,930	2,781	2,604	984	898	771	1,049	857	819	713	958	8,342	7,352			
333-9	Construction, mining, and material handling equipment	2,352	2,289	2,411	2,288	7,052	6,858	6,521	2,387	2,234	2,327	2,490	2,019	1,887	1,838	2,060	20,795	17,201			
	Metalworking machinery.....	747	739	680	676	2,166	1,979	1,827	775	654	594	751	581	465	465	604	5,950	4,720			
356	General industrial machinery	931	961	933	921	2,825	2,787	2,632	955	911	866	1,010	899	869	743	850	8,243	7,382			

See footnotes at end of table.

Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS FOR INDUSTRY GROUPS, MARKET CATEGORIES, AND SUPPLEMENTARY SERIES--Continued

(Millions of dollars)

SIC	Industry	Seasonally adjusted					Without seasonal adjustment ¹												Year to date	
		Monthly			Quarterly		Last 4 months				Monthly				Last 4 months (a year ago)				1978	1977
		Sept. 1978 ²	Aug. 1978 ²	July 1978	June 1978	III 1978	II 1978	I 1978	Sept. 1978 ²	Aug. 1978 ²	July 1978	June 1978	Sept. 1977	Aug. 1977	July 1977	June 1977				
INDUSTRY GROUPS, AND INDUSTRIES--Continued																				
36	Electrical machinery, total...	8,518	8,495	8,071	8,167	25,084	24,215	23,523	9,033	8,273	7,271	8,627	7,699	7,060	6,501	7,470	72,307	62,767		
361,2	Electrical transmission and distribution equipment and industrial apparatus...	1,476	1,518	1,512	1,423	4,506	4,262	4,345	1,545	1,466	1,325	1,532	1,341	1,264	1,126	1,375	13,113	11,406		
363	Household appliances...	1,005	1,027	942	1,041	2,974	3,101	2,944	1,093	1,060	939	1,131	940	886	860	964	9,126	7,508		
365	Radio and TV...	668	703	640	677	1,991	1,865	1,630	763	730	519	667	607	524	407	541	5,241	4,244		
366	Communication equipment...	2,567	2,368	2,178	2,324	7,113	6,671	6,343	2,558	2,229	1,989	2,439	1,989	1,812	1,753	1,993	20,056	16,707		
367	Electronic components...	1,258	1,245	1,264	1,221	3,767	3,679	3,626	1,327	1,193	1,121	1,248	1,214	1,158	1,094	1,259	10,990	10,701		
37	Transportation equipment, total...	16,708	16,324	15,510	15,887	48,542	48,146	45,272	17,383	13,858	13,185	17,540	14,825	11,837	12,712	15,833	141,014	125,862		
371	Motor vehicles and parts...	11,086	11,237	10,670	10,803	32,993	33,232	31,047	11,817	9,141	8,645	12,035	10,229	7,826	8,584	11,035	96,649	86,704		
372,6	Aircraft, missiles, and parts...	4,112	3,559	3,304	3,529	10,975	10,093	9,612	4,033	3,267	3,070	3,781	3,122	2,716	2,796	3,235	30,272	26,249		
3731	Shipbuilding and military tank vehicles...	609	668	684	632	1,961	1,998	1,827	628	624	654	688	570	539	589	649	5,693	5,309		
3795	Instruments and related products, total...	2,696	2,714	2,579	2,674	7,989	7,845	7,468	2,868	2,716	2,390	2,826	2,560	2,376	2,151	2,515	23,099	21,022		
381-4	Scientific and engineering...	1,529	1,557	1,474	1,555	4,560	4,497	4,350	1,597	1,523	1,348	1,643	1,428	1,290	1,199	1,394	13,375	11,892		
386	Photographic goods...	980	973	918	931	2,871	2,781	2,613	1,059	1,001	886	988	900	868	775	881	8,110	7,231		
24	All other durable goods	6,745	6,942	6,520	6,661	20,207	19,926	19,468	7,372	7,486	6,134	7,235	6,737	6,586	5,414	6,258	60,180	52,516		
25	Industries...																			
20	Nondurable goods industries: Food and kindred products, total...	17,839	18,122	17,599	17,844	53,560	53,634	51,000	18,661	18,209	16,983	18,024	16,560	16,200	15,037	16,205	157,621	142,097		
201	Meat products...	4,707	4,767	4,635	4,669	14,109	14,369	13,330	4,820	4,848	4,575	4,707	4,559	4,112	3,860	4,014	41,570	35,440		
208	Beverages...	2,202	2,243	2,101	2,043	6,546	6,163	5,825	2,268	2,256	2,194	2,349	1,895	1,907	1,907	2,115	18,568	16,652		
207	Fats and oils...	1,347	1,347	1,445	1,483	4,302	4,302	3,826	1,375	1,354	1,331	1,459	1,246	1,229	1,309	1,314	12,251	11,080		
203-6,9	All other foods...	7,174	7,334	7,045	7,268	21,553	21,776	21,374	7,741	7,349	6,595	7,159	7,108	6,719	5,822	6,577	64,349	59,281		
21	Tobacco products...	921	921	824	960	2,666	2,709	2,574	927	968	821	1,003	806	832	765	820	7,931	7,080		
22	Textile mill products...	3,683	3,706	3,639	3,606	11,028	11,279	10,604	3,926	3,744	3,100	3,818	3,667	3,483	2,859	3,563	32,712	30,071		
26	Paper and allied products, total...	4,820	4,859	4,861	4,815	14,540	14,361	13,736	4,975	5,007	4,592	5,066	4,413	4,501	4,064	4,639	42,872	39,369		
261-3	Pulp, paper, etc...	2,017	2,016	2,132	2,164	6,165	6,378	6,128	2,015	2,081	2,020	2,232	1,937	2,007	1,877	2,074	18,696	17,842		
265	Paperboard containers...	1,091	1,128	1,064	1,086	3,283	3,262	3,123	1,136	1,167	1,014	1,123	1,052	1,077	918	1,069	9,714	9,304		
264	All other paper containers...	1,712	1,715	1,665	1,565	5,092	4,721	4,485	1,824	1,759	1,558	1,711	1,424	1,417	1,269	1,496	14,462	12,223		
28	Chemicals and allied products, total...	10,374	10,188	10,399	10,719	30,961	31,689	30,593	10,892	10,241	9,605	11,161	10,055	9,465	8,669	9,930	94,859	86,155		
281,6	Industrial chemicals, except pigments...	3,447	3,485	3,483	3,563	10,415	10,518	10,112	3,488	3,453	3,270	3,691	3,358	3,258	3,054	3,449	31,580	29,619		
283,4	Drugs, soap, and toiletries...	2,978	2,759	2,873	2,837	8,610	8,360	8,214	3,418	2,817	2,589	2,920	3,031	2,547	2,232	2,588	27,700	22,700		
29	Petroleum and coal products...	9,114	8,863	8,600	8,590	26,577	25,272	24,191	9,162	8,926	8,679	8,721	8,077	8,083	8,087	7,964	76,143	70,878		
30	Rubber and plastics products, n.e.c...	3,418	3,515	3,258	3,283	10,191	9,832	9,531	3,514	3,544	3,001	3,491	3,239	3,094	2,797	3,275	29,798	27,586		
23	All other nondurable goods industries...	8,803	9,013	8,704	8,729	26,520	25,963	24,669	9,524	9,536	8,303	8,604	8,803	8,566	7,569	7,795	76,548	69,483		
27	Industries...																			

¹ Preliminary. Revised.² Shipments and new orders are the totals for the period and are adjusted for trading-day and calendar-month variations; unfilled orders and inventories are as of the end of the period and are not adjusted for trading-day or calendar-month variations.³ The supplementary series are regroupings of the separate industry categories as follows:

Household durable goods industries - Household furniture; kitchen articles and pottery; cutlery, handtools, and hardware; household appliances; radio and TV; ophthalmic goods, watches, and clocks; and miscellaneous personal goods.

Capital goods industries--The capital goods industries series is comparable to the previous Producers' Capital goods and the Defense Products (old series) categories.

Nondurable products--Machinery, except electrical (excluding farm machinery and machine shops), electrical machinery (excluding household appliances, radio and TV and electronic components), and the nondurable portions of shipbuilding and repairing and railroad equipment, communication equipment, aircraft and aircraft parts, and ordnance.

Defense products--Based on separate reports on defense work filed by large defense contractors in the following industries: Ordnance, communication equipment, aircraft and aircraft parts, and shipbuilding. The data are comparable to those published annually in the MA-175, Shipments of Defense-Ordered Industries, for the specified industries.

Table 2.--VALUE OF MANUFACTURERS' NEW ORDERS FOR INDUSTRY GROUPS, MARKET CATEGORIES AND SUPPLEMENTARY SERIES

Millions of dollars)																	
SIC	Industry	Seasonally adjusted						Without seasonal adjustment ¹									
		Monthly			Quarterly			Monthly									
								Last 4 months			Last 4 months (a year ago)			Year to date			
		Sept. 1978 ²	Aug. 1978	July 1978	June 1978	III 1978	II 1978	I 1978	Sept. 1978 ²	Aug. 1978	July 1978	June 1978	Sept. 1977	Aug. 1977	July 1977	June 1977	1977
ALL MANUFACTURING, DURABLE AND NONDURABLE GOODS, TOTAL																	
All manufacturing industries: Total..... Total, excluding trans- portation..... Total for industries with unfilled orders..... Durable goods industries, total..... Durable goods with unfilled orders..... Nondurable goods industries, total..... Industries with unfilled orders..... Industries without unfilled orders.....	131,372	130,952	123,279	127,580	385,603	384,205	366,244	136,192	129,873	117,023	134,171	117,770	111,623	103,795	118,079	1,139,045	
	112,949	112,436	108,053	109,627	333,438	330,512	317,018	117,091	113,650	102,875	115,099	102,948	99,985	91,043	101,370	985,469	
	72,034	71,469	65,276	68,538	208,779	207,409	196,986	73,823	70,984	62,298	72,408	61,787	58,701	53,608	62,335	614,334	
	72,297	71,582	65,187	68,840	209,066	208,918	199,032	74,624	69,713	61,702	74,237	62,243	57,598	53,776	63,955	619,116	
	59,086	58,261	52,206	55,604	169,553	168,624	160,525	60,294	57,747	50,244	59,353	49,545	46,895	42,841	50,528	500,227	
	59,075	59,370	58,092	58,740	176,537	175,287	167,212	61,568	60,160	55,321	59,934	55,527	54,025	50,019	54,124	519,929	
	12,948	13,208	13,070	12,934	39,226	38,785	36,461	13,529	13,237	12,054	13,055	12,242	11,808	10,767	11,807	114,107	
	46,127	46,162	45,022	45,806	137,311	136,502	130,751	48,039	46,923	43,267	46,879	43,285	42,217	39,252	42,317	405,822	
	MARKET CATEGORIES AND SUPPLEMENTARY SERIES																
	Market categories: Home goods and apparel..... Consumer staples..... Equipment and defense prod- ucts, except automotive..... Automotive equipment..... Construction materials, sup- plies, and intermediate prod- ucts..... Other materials and supplies and intermediate products..... Supplementary series: ² Household durable goods indus- tries..... Capital goods industries..... Nondefense..... Defense.....	9,768	9,955	9,177	9,398	28,900	28,555	27,389	10,773	10,793	8,742	9,738	9,626	9,716	8,116	8,802	85,163
22,710		22,840	22,350	22,526	67,900	67,609	64,791	24,045	23,031	21,468	22,843	21,495	20,675	18,951	20,578	199,478	
20,291		19,485	16,204	18,317	55,980	56,035	53,262	20,585	18,705	16,343	19,621	15,724	13,897	14,101	17,163	164,753	
13,117		13,000	12,209	12,612	38,326	38,801	36,891	13,881	11,151	10,356	14,058	11,884	9,765	10,163	12,931	114,032	
10,563		10,986	10,437	10,690	31,986	32,508	30,825	11,354	11,813	10,466	11,910	10,103	10,018	8,845	10,080	96,668	
54,923		54,686	52,902	54,037	162,511	160,697	153,086	55,554	54,380	49,648	56,001	48,938	47,552	43,619	48,525	478,951	
4,450		4,563	4,039	4,263	13,052	12,926	12,254	4,969	4,847	3,786	4,539	4,258	4,335	3,474	3,956	33,542	
23,553		22,701	19,355	21,592	65,609	65,234	61,912	23,962	21,766	19,501	22,835	18,622	16,285	16,070	19,265	154,949	
20,017		19,344	17,074	18,155	56,435	53,688	51,900	20,282	19,054	16,821	19,281	16,349	14,292	13,721	16,534	162,204	
3,536		3,357	2,281	3,437	9,174	11,546	10,012	3,680	2,712	2,680	3,554	2,273	1,993	2,369	2,731	29,762	
INDUSTRY GROUPS AND INDUSTRIES																	
Durable goods industry: Stone, clay and glass..... Primary metals, total..... Blast furnaces, steel mills, Nonferrous and other primary metal products..... Fabricated metal products.....	3,695	3,719	3,587	3,763	11,001	11,129	10,121	3,993	3,993	3,519	4,092	3,196	3,304	2,827	3,240	26,583	
	11,190	10,876	10,095	10,428	32,161	31,490	30,031	10,608	10,718	9,196	11,019	8,605	8,805	7,854	8,851	94,186	
	5,757	5,184	5,151	5,451	16,092	16,627	15,616	5,121	5,268	4,753	5,743	4,229	4,532	4,020	4,352	39,989	
	4,277	4,504	3,850	3,954	12,631	11,722	11,401	4,289	4,296	3,474	4,163	3,376	3,339	2,972	3,493	30,988	
	7,990	8,294	7,524	7,736	23,808	24,537	23,442	8,681	8,554	7,369	8,583	7,772	7,254	6,447	7,749	63,798	
Machinery, except electrical, total..... Engines and turbines..... Construction, mining, and material handling equipment Metalworking machinery..... General industrial machinery	12,666	11,830	11,669	11,477	36,165	34,885	33,618	12,634	11,372	11,022	12,562	10,523	10,082	9,182	10,997	90,406	
	1,280	1,090	751	764	3,121	2,651	2,865	1,216	1,002	741	837	1,027	781	782	845	7,218	
	2,410	2,066	2,523	2,095	6,999	7,068	7,086	2,356	2,053	2,470	2,403	2,000	2,007	1,809	2,100	17,323	
	851	844	913	799	2,608	2,350	2,240	847	897	802	878	608	608	536	658	5,184	
	893	910	983	1,008	2,786	2,701	2,770	957	933	936	1,056	909	942	706	958	7,733	

See footnotes at end of table.

Table 2.--VALUE OF MANUFACTURERS' NEW ORDERS FOR INDUSTRY GROUPS, MARKET CATEGORIES AND SUPPLEMENTARY SERIES--Continued

(Millions of dollars)

SIC	Industry	Without seasonal adjustment ¹										Year to date						
		Seasonally adjusted					Monthly											
		Monthly			Quarterly		Last 4 months				Last 4 months (a year ago)							
		Sept. 1978 ^b	Aug. 1978	July 1978	June 1978	III 1978	II 1978	I 1978	Sept. 1978 ^b	Aug. 1978	July 1978	June 1977	July 1977					
INDUSTRY GROUPS AND INDUSTRIES--Continued																		
36	Electrical machinery, total....	8,868	8,730	7,902	8,239	25,500	25,217	25,213	9,448	8,631	7,583	8,788	7,849	7,374	6,901	7,650	76,042	64,689
361.2	Electrical transmission and distribution equipment and industrial apparatus.....	1,599	1,528	1,431	1,444	4,558	4,315	4,735	1,640	1,518	1,352	1,512	1,366	1,256	1,147	1,255	13,725	11,481
363	Household appliances.....	983	1,031	918	1,027	2,932	3,053	3,025	1,050	1,058	952	1,121	930	860	916	974	9,182	7,609
365	Radio and TV.....	903	829	589	695	2,321	2,013	1,526	1,043	876	509	741	453	741	594	4,273	5,725	4,273
366	Communication equipment.....	2,576	2,489	1,974	2,336	7,037	7,217	7,100	2,686	2,349	2,026	2,457	2,192	1,766	1,996	2,067	21,365	17,666
367	Electronic components.....	1,217	1,214	1,437	1,280	3,868	3,977	4,147	1,278	1,215	1,330	1,361	1,314	1,273	1,154	1,390	12,153	11,349
37	Transportation equipment, total.....	18,423	18,516	15,226	17,953	52,165	53,693	49,226	19,101	16,223	14,148	19,072	14,822	11,638	12,752	16,709	153,576	127,682
372.6	Aircraft, missiles, and parts.....	5,360	5,460	3,298	5,677	14,118	15,452	11,735	5,490	5,278	3,959	5,233	3,473	2,724	2,970	4,097	39,986	28,324
3731	Shipbuilding and military tank vehicles.....	646	591	422	301	1,659	1,377	2,787	572	370	506	519	323	81	382	609	5,819	3,955
3795	Instruments and related products.....	2,840	2,713	2,712	2,689	8,265	8,050	7,753	2,977	2,758	2,551	2,909	2,646	2,470	2,188	2,510	23,966	21,445
38	All other durable goods industries.....	6,625	6,904	6,472	6,555	20,001	19,917	19,628	7,182	7,464	6,314	7,212	6,830	6,671	5,625	6,249	60,512	53,348

Preliminary. Revised.

¹Shipments and new orders are the totals for the period and are adjusted for trading-day and calendar-month variations; unfilled orders and inventories are as of the end of the period and are not adjusted for trading-day or calendar-month variations.

²The supplementary series are regroupings of the separate industry categories as follows:

Household durable goods industries - Household furniture; kitchen articles and pottery; cutlery, handtools, and hardware; household appliances; radio and TV; optical goods, watches, and clocks and miscellaneous personal goods.

Capital goods industries - The capital goods industries is comparable to the previous producers' Capital Goods and the Defense Products (old series) categories.

Nondefense products--Machinery, except electrical (excluding farm machinery and equipment and machine shops), electrical machinery (excluding household appliances, radio and TV and electronic components), and the nondefense portions of shipbuilding and repairing and railroad equipment, communication equipment, aircraft and aircraft parts, and ordnance.

Defense products--Based on separate reports on defense work filed by large defense contractors in the following industries: Ordnance, communication equipment, aircraft and aircraft parts, and shipbuilding. The data are comparable to those published annually in the MA-175, Shipments of Defense-Oriented Industries, for the specified industries.

Table 3.--VALUE OF MANUFACTURERS' UNFILLED ORDERS FOR INDUSTRY GROUPS, MARKET CATEGORIES AND SUPPLEMENTARY SERIES
(Millions of dollars)

SIC	Industry	Seasonally adjusted					Without seasonal adjustment ¹											
		Monthly					Quarterly					Monthly						
		Sept. 1978p	Aug. 1978r	July 1978	June 1978	I 1978	IV 1977	III 1977	II 1977	I 1977	Sept. 1978p	Aug. 1978r	July 1978	June 1978	Sept. 1977	Aug. 1977	July 1977	June 1977
ALL MANUFACTURING, DURABLE AND NONDURABLE GOODS, TOTAL																		
	All manufacturing industries: Total.....	223,532	219,999	216,922	216,754	205,500	193,659	183,547	182,816	178,469	223,768	221,444	217,738	215,098	183,975	183,813	182,667	181,550
	Total, excluding trans- portation.....	149,881	148,061	147,177	146,725	141,020	133,132	128,624	126,598	125,386	150,356	149,752	148,411	146,734	129,178	129,014	127,669	126,592
	Durable goods industries, total.....	213,351	209,922	207,026	207,067	196,359	184,834	174,966	174,363	169,938	213,770	211,434	207,714	205,310	175,551	175,296	173,951	173,006
	Nondurable goods industries, total.....	10,181	10,077	9,896	9,687	9,141	8,825	8,581	8,453	8,531	9,988	10,010	10,024	9,788	8,424	8,517	8,716	8,544
MARKET CATEGORIES AND SUPPLEMENTARY SERIES																		
	Market categories:																	
	Home goods and apparel.....	4,523	4,396	4,266	4,329	4,285	4,091	3,889	3,498	3,381	4,860	4,736	4,591	4,360	4,171	4,211	3,883	3,522
	Consumer staples.....																	
	Equipment and defense prod- ucts, except automotive.....	127,170	124,857	122,938	123,708	117,326	110,488	104,248	105,195	101,177	127,481	125,132	122,788	121,920	104,609	104,497	104,466	103,848
	Automotive equipment.....																	
	Construction materials, sup- plies, and intermediate prod- ucts.....	19,449	19,888	20,102	20,269	19,852	18,765	18,224	18,310	18,085	19,655	20,047	20,193	20,230	18,427	18,426	18,295	18,270
	Other materials and supplies and intermediate products....	72,390	70,858	69,616	68,448	64,037	60,315	57,186	55,813	55,826	71,772	71,529	70,166	68,588	56,768	56,679	56,023	55,910
	Supplementary series: ²																	
	Household durable goods indus- tries.....	3,652	3,546	3,431	3,546	3,486	3,389	3,135	2,796	2,702	3,973	3,905	3,767	3,589	3,403	3,438	3,131	2,828
	Capital goods industries.....	138,749	136,464	134,172	134,393	127,402	120,899	113,340	114,138	110,365	138,857	136,601	134,046	132,509	113,535	112,999	113,098	112,721
	Nondefense.....	98,460	96,767	95,021	94,768	90,712	85,893	82,633	82,265	79,490	99,158	97,495	94,950	93,488	83,254	82,204	81,849	81,310
	Defense.....	40,289	39,697	39,151	39,625	36,690	35,006	30,707	31,873	30,875	39,699	39,106	39,096	39,021	30,281	30,795	31,249	31,411
INDUSTRY GROUPS AND INDUSTRIES																		
	Durable goods industry:																	
32	Stone, clay and glass.....	2,743	2,801	2,872	2,928	2,887	2,640	2,473	2,467	2,360	2,748	2,824	2,912	2,975	2,477	2,479	2,469	2,507
33	Primary metals, total.....	24,677	23,760	23,232	23,043	20,866	18,513	17,852	17,014	17,322	23,913	23,979	23,372	23,307	17,306	17,657	17,225	17,215
331	Blast furnaces, steel mills.....	16,126	15,583	15,464	15,344	13,689	11,852	11,524	11,002	11,158	15,578	15,801	15,572	15,497	11,144	11,393	11,138	11,115
333-6,9	Nonferrous and other primary metal products.....	6,702	6,421	6,184	6,158	5,696	5,350	5,073	4,829	5,067	6,481	6,427	6,215	6,281	4,903	5,025	4,875	4,926
34	Fabricated metal products.....	24,849	24,993	24,941	24,956	24,213	23,203	22,733	23,047	23,051	25,335	25,222	25,062	24,852	23,187	23,048	23,011	22,962
35	Machinery, except electrical. total.....	50,892	50,266	50,268	50,055	49,044	47,221	45,792	45,135	44,536	51,096	50,786	50,488	49,911	45,965	45,823	45,251	45,015
351	Engines and turbines.....	16,378	16,209	16,203	16,491	16,699	16,738	16,444	16,286	16,371	16,373	16,331	16,295	16,389	16,423	16,299	16,268	16,197
353	Construction, mining, and material handling equip- ment.....	7,524	7,466	7,689	7,577	7,369	6,805	6,419	6,331	6,510	7,577	7,608	7,789	7,645	6,461	6,480	6,360	6,389
354	Metallurgical machinery.....	4,771	4,668	4,563	4,330	3,958	3,545	3,320	3,160	2,950	4,819	4,747	4,504	4,295	3,327	3,207	3,136	3,136
356	General industrial machinery	6,702	6,740	6,792	6,741	6,827	6,689	6,660	6,752	6,608	6,789	6,787	6,765	6,694	6,736	6,736	6,663	6,700

See footnotes at end of table.

Table 4.--VALUE OF MANUFACTURERS' INVENTORIES FOR INDUSTRY GROUPS, MARKET CATEGORIES AND SUPPLEMENTARY SERIES

(Millions of dollars)

SIC	Industry	Seasonally adjusted					Without seasonal adjustment 1											
		Monthly			Quarterly		Monthly											
							Last 4 months					Last 4 months (a year ago)						
		Sept. 1978 ^p	Aug. 1978 ^r	July 1978	June 1978	1 1978	IV 1977	III 1977	II 1977	I 1977	Sept.- 1978 ^p	Aug. 1978 ^r	July 1978	June 1978	Sept. 1977	Aug. 1977	July 1977	June 1977
ALL MANUFACTURING, DURABLE AND NONDURABLE GOODS, TOTAL																		
	All manufacturing industries:	194,071	192,882	191,167	189,557	183,860	179,714	179,011	176,648	172,536	191,886	191,281	189,439	188,846	177,031	176,603	175,611	175,760
	Total, excluding transportation.....	170,399	169,482	168,157	166,773	161,733	158,456	157,519	155,499	151,811	168,114	167,939	166,993	166,467	155,428	155,307	155,175	155,177
	Total for industries with unfilled orders.....	132,518	131,599	130,106	128,656	124,226	120,701	119,997	118,141	115,801	131,241	131,013	129,637	129,047	118,884	119,043	118,367	118,509
	Durable goods industries, total.	126,006	125,206	123,830	122,688	118,725	115,424	114,467	112,536	110,579	124,729	124,430	123,160	122,891	113,341	113,240	112,537	112,722
	Durable goods with unfilled orders.....	116,902	116,035	114,475	113,267	109,358	106,263	105,640	103,771	101,812	115,785	115,310	113,799	113,415	104,680	104,522	103,716	103,908
	Nondurable goods industries, total.....	68,065	67,676	67,337	66,869	65,135	64,290	64,544	63,932	61,957	67,157	66,851	66,279	65,955	63,690	63,363	63,074	63,034
	Nondurable goods with unfilled orders.....	15,616	15,564	15,631	15,389	14,868	14,438	14,357	14,370	13,989	15,456	15,703	15,838	15,632	14,204	14,521	14,651	14,601
MARKET CATEGORIES AND SUPPLEMENTAL SERIES																		
	Market categories:	16,934	16,859	16,707	16,276	15,947	15,340	15,260	15,253	14,974	16,731	16,923	17,012	17,008	15,094	15,430	15,607	15,916
	Home goods and apparel.....	26,038	25,511	25,366	25,407	24,157	23,942	24,626	24,137	23,320	25,958	25,114	24,413	24,330	24,547	23,738	23,076	23,095
	Equipment and defense products, except automotive.....	48,075	47,790	47,339	46,761	44,645	42,836	41,729	40,693	40,095	47,573	47,405	47,074	46,756	41,305	41,051	40,840	40,700
	Automotive equipment.....	10,768	10,510	10,106	10,265	10,256	10,108	10,257	10,098	9,794	10,770	10,377	9,529	9,952	10,261	10,043	9,421	9,795
	Construction materials, supplies, and intermediate products.....	16,476	16,372	16,299	16,293	15,853	14,935	14,777	14,535	14,594	16,355	16,353	16,284	16,224	14,674	14,620	14,633	14,489
	Other materials and supplies and intermediate products....	75,780	75,840	75,350	74,555	73,002	72,553	72,362	71,752	69,752	74,499	75,109	75,127	74,576	71,150	71,721	72,034	71,765
	Supplementary series:	8,703	8,635	8,574	8,307	8,116	7,771	7,814	7,747	7,539	8,532	8,652	8,682	8,581	7,673	7,836	7,861	7,993
	Household durable goods industries.....	52,809	52,620	52,112	51,399	48,772	46,677	45,544	44,665	43,926	52,305	52,300	51,849	51,447	45,138	44,949	44,613	44,719
	Capital goods industries.....	46,025	45,743	45,227	44,583	42,151	40,294	39,231	38,348	37,675	45,480	45,333	44,858	44,583	38,775	38,518	38,210	38,359
	Nondefense.....	6,784	6,877	6,885	6,816	6,621	6,383	6,313	6,317	6,251	6,825	6,967	6,991	6,864	6,362	6,429	6,403	6,361
	Defense.....																	
INDUSTRY GROUPS AND INDUSTRIES																		
	Durable goods industries:	4,739	4,688	4,606	4,569	4,530	4,259	4,219	4,123	4,006	4,593	4,627	4,628	4,608	4,091	4,134	4,209	4,163
32	Stone, clay, and glass products.....	516	526	504	491	485	414	419	435	404	499	516	513	495	406	415	457	439
33	Primary metals, total.....	17,717	17,546	17,335	17,209	16,828	17,779	18,082	17,961	17,693	17,359	17,315	17,293	17,277	17,730	17,858	18,070	18,020
331	Blast furnaces, steel mills, and other primary metals.....	9,528	9,384	9,126	8,978	8,721	9,782	10,244	10,314	10,169	9,375	9,271	9,081	8,969	10,084	10,193	10,326	10,299
333-339	Nonferrous and other primary metals.....	6,976	6,953	6,987	7,000	6,893	6,826	6,685	6,561	6,449	6,816	6,863	7,008	7,056	6,536	6,578	6,660	6,615
34	Fabricated metal prod., total.	16,362	16,425	16,313	16,130	15,573	14,760	14,732	14,415	14,105	16,274	16,375	16,382	16,197	14,639	14,676	14,635	14,484
341	Metal cans, barrels, and drums.....	1,193	1,292	1,353	1,398	1,382	1,395	1,299	1,248	1,235	1,113	1,291	1,445	1,513	1,212	1,292	1,360	1,350
35	Machinery, except electrical, total.....	29,504	29,374	29,062	28,766	27,400	26,379	25,431	25,060	24,600	29,031	29,010	28,793	28,794	25,023	24,998	25,002	25,092
351	Engines and turbines.....	2,291	2,343	2,332	2,388	2,226	2,083	2,059	2,119	1,975	2,267	2,311	2,293	2,039	2,237	2,032	2,037	2,106
352	Farm machinery and equipment	2,373	2,354	2,423	2,460	2,499	2,505	2,491	2,415	2,345	2,280	2,302	2,386	2,468	2,395	2,431	2,455	2,425
353	Construction, mining, and material handling equipment	6,756	6,609	6,493	6,322	5,953	5,840	5,602	5,473	5,555	6,601	6,496	6,415	6,315	5,473	5,428	5,413	5,467
354	Metallurgical machinery.....	1,873	1,873	1,873	1,852	1,797	1,775	1,717	1,710	1,690	1,862	1,871	1,852	1,714	1,708	1,691	1,693	1,693
356	General industrial machinery	3,072	3,020	2,974	2,899	2,806	2,731	2,570	2,523	2,392	3,026	3,002	2,980	2,939	2,532	2,526	2,536	2,559

See footnotes at end of table.

Table 4.--VALUE OF MANUFACTURERS' INVENTORIES FOR INDUSTRY GROUPS, MARKET CATEGORIES AND SUPPLEMENTARY SERIES--Continued

(Millions of dollars)

SIC	Industry	Seasonally adjusted				Without seasonal adjustment ¹												
		Monthly		Quarterly		Monthly												
		Sept. 1978 ^b	Aug. 1978 ^a	July 1978	June 1978	I 1978	IV 1977	III 1977	II 1977	I 1977	Last 4 months				Last 4 months (a year ago)			
											Sept. 1978 ^b	Aug. 1978 ^a	July 1978	June 1978	Sept. 1977	Aug. 1977	July 1977	June 1977
INDUSTRY GROUPS AND INDUSTRIES																		
36	Electrical machinery, total.....	16,982	16,860	16,758	16,628	16,023	15,433	15,173	14,884	14,404	16,773	16,844	16,817	16,925	14,999	15,027	14,914	15,151
361,2	Electrical transmission and distribution equipment	3,161	3,142	3,089	3,150	2,976	2,959	2,862	2,824	2,773	3,125	3,122	3,090	3,155	2,830	2,803	2,814	2,828
363	Household appliances.....	2,033	2,049	2,034	1,953	1,878	1,771	1,734	1,724	1,656	1,940	2,000	2,060	2,071	1,656	1,700	1,730	1,822
365	Radio and TV.....	1,008	983	1,019	1,019	1,029	989	921	907	869	1,024	1,042	1,072	1,068	937	987	953	951
366	Communication equipment.....	5,389	5,299	5,200	5,168	4,961	4,819	4,601	4,378	4,193	5,356	5,304	5,183	5,190	4,492	4,492	4,410	4,402
367	Electronic components.....	2,520	2,525	2,539	2,525	2,495	2,413	2,467	2,412	2,368	2,515	2,520	2,544	2,538	2,461	2,458	2,434	2,425
37	Transportation equipment, total.....	23,672	23,400	23,010	22,784	22,127	21,258	21,492	20,969	20,725	23,772	23,342	22,446	22,379	21,603	21,296	20,436	20,583
371	Motor vehicles and parts.....	8,516	8,232	7,828	8,003	8,019	7,851	8,024	7,905	7,651	8,593	8,174	7,334	7,731	8,103	7,888	7,329	7,640
372,6	Aircraft, missiles, and parts.....	11,536	11,651	11,591	11,251	10,554	10,089	10,190	10,065	10,076	11,576	11,644	11,499	11,128	10,224	10,234	10,081	9,971
3731	Shipbuilding and military tank vehicles.....	1,743	1,704	1,816	1,761	1,840	1,618	1,579	1,435	1,446	1,751	1,731	1,883	1,797	1,598	1,555	1,476	1,448
38	Instruments and related products, total.....	6,381	6,282	6,199	6,203	6,087	5,727	5,642	5,436	5,410	6,359	6,303	6,237	6,279	5,625	5,617	5,580	5,506
381-4	Scientific and engineering.....	4,100	4,041	3,983	3,965	3,880	3,698	3,627	3,463	3,400	4,059	4,017	3,979	3,997	3,591	3,582	3,532	3,492
386	Photographic goods.....	1,798	1,756	1,738	1,757	1,703	1,584	1,569	1,529	1,517	1,812	1,791	1,773	1,789	1,582	1,623	1,592	1,558
24	All other durable goods industries.....	10,649	10,631	10,547	10,399	10,157	9,829	9,696	9,688	9,636	10,568	10,614	10,564	10,432	9,631	9,634	9,691	9,727
25	Nondurable goods industries: Food and kindred products, total.....	16,959	16,674	16,525	16,643	15,968	15,575	16,268	16,614	16,099	16,794	16,265	15,662	15,582	16,092	15,701	15,431	15,566
201	Meat products.....	1,582	1,523	1,458	1,420	1,386	1,286	1,398	1,423	1,384	1,539	1,466	1,440	1,437	1,358	1,340	1,426	1,442
208	Beverages.....	3,280	3,109	3,062	3,063	2,982	2,941	3,038	2,901	2,893	3,228	3,019	2,973	2,999	2,990	2,877	2,821	2,841
207	Fats and oils.....	1,361	1,421	1,384	1,482	1,564	1,357	1,394	1,345	1,998	1,046	1,180	1,172	1,372	1,072	1,255	1,612	1,804
203-6,9	All other foods.....	9,462	9,315	9,342	9,402	8,826	8,836	9,286	9,138	8,710	9,670	9,249	8,698	8,480	9,486	9,009	8,321	8,253
21	Tobacco products.....	3,469	3,359	3,385	3,501	3,405	3,524	3,531	3,486	3,399	3,334	3,117	3,057	3,287	3,390	3,204	3,163	3,273
22	Textile mill products.....	5,646	5,554	5,542	5,475	5,445	5,294	5,303	5,399	5,265	5,571	5,566	5,563	5,553	5,231	5,364	5,413	5,480
26	Paper and allied products, total.....	5,895	5,816	5,939	5,869	5,664	5,622	5,634	5,547	5,331	5,782	5,802	5,963	5,904	5,529	5,628	5,624	5,585
261-3	Pulp, paper, etc.....	1,965	2,009	2,076	2,107	2,122	2,099	2,137	2,086	2,046	1,934	2,002	2,066	2,118	2,101	2,136	2,114	2,100
265	Paperboard containers.....	1,725	1,730	1,761	1,681	1,608	1,590	1,628	1,625	1,542	1,694	1,735	1,762	1,698	1,600	1,641	1,669	1,642
264	All other paper containers.....	2,205	2,077	2,102	2,081	1,934	1,933	1,869	1,836	1,743	2,154	2,065	2,135	2,088	1,828	1,851	1,861	1,843
28	Chemicals and allied products, total.....	15,300	15,182	15,054	14,861	14,426	14,134	13,949	13,384	12,942	14,916	14,933	14,909	14,637	13,606	13,541	13,480	13,205
281,6	Industrial chemicals, except pigments.....	4,610	4,532	4,510	4,411	4,334	4,312	4,208	4,148	3,968	4,522	4,492	4,474	4,340	4,129	4,193	4,146	4,085
283,4	Drugs, soap, and toiletries.....	4,805	4,676	4,622	4,576	4,288	4,222	4,318	4,109	3,917	4,685	4,653	4,682	4,626	4,212	4,167	4,187	4,154
29	Petroleum and coal products.....	5,372	5,512	5,530	5,397	5,591	5,992	5,926	5,627	5,217	5,450	5,534	5,523	5,374	6,018	5,856	5,747	5,603
30	Rubber and plastics products, n.e.c.....	4,561	4,581	4,521	4,521	4,401	4,281	4,296	4,220	4,114	4,441	4,465	4,442	4,507	4,180	4,185	4,168	4,208
23	All other nondurable goods industries.....	10,863	10,998	10,841	10,602	10,235	9,868	9,637	9,655	9,590	10,869	11,169	11,160	11,111	9,644	9,875	10,048	10,114

^a Preliminary. Revised.

Shipments and new orders are the totals for the period and are adjusted for trading-day and calendar-month variations; unfilled orders and inventories are as of the end of the period and are not adjusted for trading-day or calendar-month variations.

The supplementary series are regroupings of the separate industry categories as follows:

Household durable goods industries - Household furniture; kitchen articles and pottery; cutlery, handtools, and hardware; household appliances; radio and TV; ophthalmic goods, watches, and clocks; and miscellaneous personal goods.

Capital goods industries - The capital goods industries series is comparable to the previous producers' Capital Goods and the Defense Products (old series) categories.

Nondefense products-- Machinery, except electrical (excluding farm machinery and machine shops), electrical machinery (excluding household appliances, radio and TV and electronic components), and the nondefense portions of shipbuilding and repairing and railroad equipment, communication equipment, aircraft and aircraft parts, and ordnance.

Defense products-- Based on separate reports on defense work filed by large defense contractors in the following industries: Ordnance, communication equipment, aircraft and aircraft parts, and shipbuilding. The data are comparable to those published annually in the NA-175, Shipments of Defense Oriented Industries, for the specified industries.

P Preliminary. r Revised.

Table 6.--MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS MONTH-TO-MONTH AND LONG TERM PERCENT-CHANGES

(Based on seasonally adjusted data)

Item and industry group	Month-to-month			Average monthly rates of change				Average, 1973-1977	
	August- September 1978	July- August 1978	June- July 1978	3 months			12 months	Average rise	Average decline
				June- Sept. 1978	May- August 1978	April- July 1978	Sept. 1977 Sept. 1978		
Shipments:									
All manufacturing industries.....	-0.0	+3.9	-1.4	+0.8	+1.2	-0.4	+1.1	+1.5	-1.2
Durable goods industries, total.....	+0.3	+5.3	-1.6	+1.3	+1.7	-0.6	+1.3	+1.8	-1.9
Nondurable goods industries, total.....	-0.4	+2.3	-1.1	+0.3	+0.6	-0.2	+0.9	+1.7	-0.7
Total inventories:									
All manufacturing industries.....	+0.6	+0.9	+0.8	+0.8	+0.9	+1.0	+0.7	+1.0	-0.3
New orders:									
All manufacturing industries.....	+0.3	+6.2	-3.4	+1.0	+0.7	-1.3	+1.2	+2.0	-1.4
Durable goods industries, total.....	+1.0	+9.8	-5.3	+1.8	+0.9	-2.3	+1.6	+2.9	-2.1
Nondurable goods industries, total.....	-0.5	+2.2	-1.1	+0.2	+0.6	0.0	+0.9	+1.8	-0.8
Unfilled orders:									
Durable goods industries, total.....	+1.6	+1.4	0.0	+1.0	+0.9	+1.2	+1.7	+1.6	-0.9

Table 7.--RATIO OF MANUFACTURERS' INVENTORIES TO SHIPMENTS AND UNFILLED ORDERS TO SHIPMENTS, BY INDUSTRY GROUP

(Based on seasonally adjusted data)

Industry group	Inventories--shipments ratio				Unfilled orders--shipments ratio ¹ (months' backlog)			
	Sept. 1978 ^P	August 1978 ^r	July 1978	June 1978	Sept. 1978 ^P	August 1978 ^r	July 1978	June 1978
All manufacturing industries, total.....	1.52	1.51	1.55	1.52	3.26	3.22	3.33	3.29
Durable goods industries, total.....	1.83	1.82	1.90	1.85	3.83	3.79	3.96	3.90
Stone, clay, and glass products.....	1.26	1.24	1.26	1.23	0.80	0.80	0.85	0.85
Primary metals.....	1.72	1.70	1.75	1.75	2.40	2.30	2.35	2.34
Fabricated metals.....	2.01	1.99	2.16	2.04	3.38	3.35	3.67	3.52
Machinery, except electrical.....	2.45	2.48	2.54	2.52	4.60	4.65	4.78	4.78
Electrical machinery.....	1.99	1.98	2.08	2.04	3.40	3.37	3.51	3.49
Transportation equipment.....	1.42	1.43	1.48	1.43	8.18	8.30	8.96	8.60
Instruments and related products.....	2.37	2.31	2.40	2.32	1.77	1.71	1.80	1.68
Nondurable goods industries, total.....	1.15	1.14	1.16	1.14	0.79	0.77	0.77	0.76
Food and kindred products.....	0.95	0.94	0.94	0.93	(X)	(X)	(X)	(X)
Tobacco products.....	3.77	3.65	4.11	3.65	(X)	(X)	(X)	(X)
Textile mill products.....	1.53	1.50	1.52	1.52	(NA)	(NA)	(NA)	(NA)
Paper and allied products.....	1.22	1.20	1.22	1.22	(NA)	(NA)	(NA)	(NA)
Chemicals and allied products.....	1.47	1.49	1.45	1.39	(X)	(X)	(X)	(X)
Petroleum and coal products.....	0.59	0.62	0.64	0.63	(X)	(X)	(X)	(X)
Rubber and plastics products, n.e.c.....	1.33	1.30	1.39	1.38	(X)	(X)	(X)	(X)

(NA) Not available. ^P Preliminary. ^r Revised. (X) Not applicable.

¹Excludes the following industries with no unfilled orders: Wood and lumber products; glass containers; metal cans, barrels and drums; farm machinery and equipment; motor vehicle assembly operation; other transportation equipment; foods and related products; tobacco; apparel and related products; building paper; die-cut paper and board; chemicals; petroleum and coal products; and rubber and plastics products, n.e.c.

The following is a description of the survey and definitions used. These are provided to clarify the meaning of the items involved and do not represent any revisions from those definitions previously employed.

DESCRIPTION OF SURVEY

The Manufacturers' Shipments, Inventories, and Orders Survey (M3-1) provides monthly figures that are comparable to the annual totals published each year in the Annual Survey of Manufactures (ASM). The ASM is a probability sample of approximately 70,000 manufacturing establishments drawn from the most recent 5-year census universe of about 312,000 establishments. In the ASM, each manufacturing establishment provides data on employment, payrolls, shipments, cost of materials, capital expenditures, and inventories as well as other selected items. Until 1976, the ASM did not compile information on unfilled orders or new orders. Since the ASM is establishment based, it provides data for each of the 425 manufacturing industries in the Standard Industrial Classification (SIC) system and area data for industry groups.

The estimates presented in the M3 report are based on a sample panel of approximately 5,000 reporting units, consisting of virtually all manufacturing companies with 1,000 or more employees and additional medium-sized companies that strengthen the sample coverage in individual industry cells. The reporting unit for many medium- or single-line companies comprises all operations of the company. Many of the larger diversified companies file separate divisional reports for their operations in different industries, although this divisional reporting is not followed by all large companies.

Each reporting unit in the monthly panel is classified into one of 79 industry classifications for tabulation. Many of the reporting units included mixed industry activity even within the broad industry categories of the monthly survey. However, the survey estimating procedure assumes that the month-to-month changes of the reporting units classified in each industry category effectively represent the month-to-month movements of the establishments in the SIC industries which make up the category. This ratio estimating procedure is used for all items compiled in the survey except for new orders which is discussed separately below.

The M3 series is periodically benchmarked to the ASM for shipments and inventories. The most recent benchmark was for 1974 through 1976 and issued in the report M3-1.7 released in March 1978. In the absence of benchmark data for unfilled orders, levels were set in August 1962 based upon the ratio of unfilled orders to sales for companies reporting in the M3. These levels were reset as of December 1973 in the M3-1.6 benchmark publication released in December 1976.

The M3 data are subject to some limitations primarily resulting from the relatively small sample used to develop the estimates and the use of divisional and company reports to extrapolate establishment based data. Precise measurement of these limitations based on estimates of the sampling errors is not available. In addition to the general limitations of M3 survey data, the estimated levels of unfilled orders are subject to further limitations due to the assumptions made in developing these levels, the definition of unfilled orders, and response difficulties. These limitations are discussed in greater detail on

pages i-iv in the introductory chapter of the latest benchmark publication mentioned above. Generally, the limitations to the unfilled orders data primarily apply to the absolute level of unfilled orders and, to a much lesser extent, to the month-to-month change in unfilled orders. Since this month-to-month change in unfilled orders is used to develop the monthly estimates of new orders, the estimates of new orders are subject to fewer limitations than the unfilled orders estimates.

To remedy the deficiencies of the presently published levels of unfilled orders, an independent benchmark survey of unfilled orders was initiated in 1977. Results from this survey should be available in the latter part of 1978.

EXPLANATION OF TERMS

Value of Shipments—Shipments in the monthly survey are equivalent to value of shipments as reported in the ASM which are received or receivable net selling values, f.o.b. plant, after discounts and allowances and excluding freight charges and excise taxes. Included in shipments are the value of all products sold, transferred to other plants of the same company, or shipped on consignment.

Shipments also include receipts of establishments in the industry for contract work performed for other, resales, receipts for miscellaneous activities such as the sale of scrap and refuse; value of installation and repair work performed by employees of the plant; and value of research and development performed at the plant. In the ship building industry the value of work done in a given year varies considerably from the value of shipments because of the long lead time between the input of the materials and labor and the shipments of the completed ship. In the annual survey, therefore, the value of work done during the year is requested rather than the value of shipments. Value of work done is also reported by aircraft and missile producers working on cost-plus contracts.

The value of shipments figures developed from the ASM contain duplication at the all manufacturing and industry group levels since the products of some industries are used as materials by other industries within the industry group. With the exception of motor vehicles, it is not significant at the 4-digit SIC group level. Since the M3-1 industry categories typically are groupings of industries, this duplication is significant for all the manufacturing, durable goods and nondurable goods categories and the various market groups. The significance of the duplication within the specific M3-1 industry groups varies depending on the 4-digit industry composition of these groups. It is most pronounced in a few highly integrated industry areas such as primary metals and motor vehicles and parts.

Since most monthly reports are for the entire company or major divisions rather than establishments, the companies are requested to report net sales, i.e., total company billings after discounts and allowances. Companies which file divisional reports are requested to treat transfers from the division of the company to another as if they were net sales to outside customers. Although this definition of shipments in the monthly reports differs from that used in the annual establishment reports, it is assumed that the month-to-month changes in company sales in the industry are representative of the month-to-month shipments of the establishments in the industry.

Inventories—End-of-month inventories in the monthly survey are identical in definition to the end-of-year inventories in the ASM. In the ASM, respondents are asked to report inventories of individual establishments at approximate current cost if feasible; otherwise, "at book values." Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the aggregate inventories for establishments in an industry is not precise. The figures on the change in inventories from one period to the next are of greater significance than the actual aggregates.

Inventories are reported by stage of fabrication: (a) finished goods; (b) work in process; and (c) materials, supplies, fuel, and other inventories. In using inventories by stage of fabrication at the all manufacturing and 2-digit industry levels as well as for the durable and nondurable goods sectors, it should be noted that a finished product of one industry may be a raw material for another industry at the next stage of fabrication. Insofar as the durable and nondurable goods sectors and also the 2-digit industry groups contain industries with successive stages of processing, the same type of commodity may be included under different inventory categories in the aggregate statistics.

New Orders and Unfilled Orders—The unfilled orders shown in this publication represent the net sales value of goods on order which have not been shipped. They are net of cancellations and include all adjustments resulting from contract

change documents. Only those orders supported by binding legal documents such as signed contracts or letter contracts are included. Some large defense contracts are authorized and funded in several stages. Only the funded portion of such contracts are included in these figures.

New orders are not calculated according to the standard ratio estimate procedure, even though they are collected as a separate item. The reason for this is that not all companies report new orders, and some that do limit their reporting to specific products for which long lead times are required in the production cycle. These companies, in effect, exclude new orders received for products that are shipped from inventory. To take advantage of the higher response rate for shipments data and to include orders filled from inventory, new orders are computed by adding the change in the backlog of unfilled orders to the current month's shipments. Thus, the estimate of new orders includes orders that are received and filled in the same month as well as orders that have not yet been filled. The estimate also includes the effects of cancellations and modifications of previously existing contracts.

Seasonally adjusted new orders are similarly derived from the monthly change in the seasonally adjusted backlog of unfilled orders and seasonally adjusted shipments. Many nondurable goods industries and some durable goods industries have no backlog of unfilled orders. Shipments are used as the estimate of new orders in these industries.

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